VERNON ENVIRONMENTAL, INC.

3949 Klahanie Drive SE, #9202, Issaquah, Washington *P/C/F 206.686.2469*

Catch Basin Sediment Field Sampling Results Report (Split Sampling Between Rainier Commons, Seattle Public Utility and King County)

Former Rainier Brewery Property
3100 Airport Way South
Seattle, Washington
King County

Prepared for:

Rainier Commons, LLC
c/o Ariel Development, LLC
Eitan Alon
3100 Airport Way South
Seattle, WA 98134

Prepared by:

Vernon Environmental, Inc.
3849 Klahanie Drive SE, Suite 9202
Issaquah, Washington 98029

July 14, 2008

Table of Contents

Catch Basin Sediment Field Sampling Results Report
(Split Sampling Between Rainier commons, Seattle Public Utility and King County)

Former Rainier Brewery Property

1.0 Site Background

The former Rainier Brewery property is an approximate 4.57-acre parcel located at 3100, Airport Way South, Seattle, WA (the, "Site"). The Site is bound between South Stevens Street to the north, by South Horton Street to the south, by Interstate-5 to the east and Airport Way South to the west. Rainier Commons, LLC (the, "Rainier") owns the Site, which is operated by Ariel Development, Inc. (the, "Ariel"). One-third of the Site is leased to Tully's Coffee. Tully's roasts, grinds, packages, distributes coffee and operates its corporate headquarters on the premises.

The Site was initially developed in the late 1800s as a brewery and functioned in a similar capacity until 1996. The Site has been owned by several entities since its initial development. Separate phases of Site redevelopment has occurred throughout its history. The Site is currently being redeveloped into community mixed use, including but not limited to, residential, commercial and retail space.

Farallon Consulting, Inc. (the, "Farallon") conducted a Phase I Environmental Site Assessment on April 14, 2004. Farallon reported, from their Site reconnaissance, nine (9) pad-mounted electrical transformers at various locations throughout the Site. Farallon also observed oil staining at floor drains adjacent to transformer vaults within several of the buildings and adjacent to abandoned equipment. They did not identify the transformer locations and associated vaults or drains as a Recognized Environmental Condition. Ariel states all of the existing onsite transformers are non-PCB containing.

On October 12, 2005 the City of Seattle's Public Utilities Department (the, "SPU") conducted a stormwater pollution prevention inspection at the Former Rainier Brewery property. Preliminary analytical data from the sediment sampling event at the Site showed concentrations of PCBs (up to 2,200 mg/kg) in the sediment collected from the following locations: the breezeway trench drain, the catch basins in the tank farm area, and two catch basins in the southwest parking lot adjacent to the building and north of the loading dock. Due to the elevated concentrations of PCBs in the sediments, the SPU directed Ariel to employ a consultant/contractor to assist in proper disposal of the material according to appropriate state and federal regulations. They also, directed Ariel to clean all outdoor inlets/trench drains/catch basins/pipes on its property. The SPU recommended additional sampling and analysis of the materials in subject structures to ensure adequate disposal methods are employed. Ariel received the SPU's Corrective Action Letter dated November 22, 2005 directing Ariel to cleanup the affected Site sediments within 30-days.

Ariel received another SPU letter dated January 6, 2006 regarding "Follow-up to Site Meeting on December 12, 2005" which included an extension of their original request to have Ariel cleanup the Site within 30-days. Ariel formally notified the Washington State Department of Ecology (Ecology) about the presence of PCB concentrations in their catch basin sediments during a meeting between Ecology (Dan Cargill) and Ariel (Eitan Alon and its consultant Conrad Vernon of VEI) on January 24, 2006. Ariel agreed to meet the following SPU required compliance contingencies:

- Meeting the content of the SPU's corrective action letter dated November 22, 2005,
- Hiring a consultant that is experienced in PCB remediation and disposal,
- Jet-cleaning of all lines connecting catch basins (with PCBs in the sediments) to remove any residual contaminated sediment in the lines,
- Notifying the Department of Ecology of the finding of significant concentrations of PCBs at your site as required by law,
- Keeping SPU apprised of ongoing work at the site in a timely manner,
- Showing continuing forward progress with the cleanup, and
- Meeting with SPU on a quarterly basis to re-evaluate the situation. Quarterly meetings commencing in early March 2006.

During Ariel's January 24, 2006 meeting with Ecology, the SPU's catch basin sediment sampling results and Ecology's regulatory approach for the ultimate cleanup of the Site sediments were discussed and agreed. The following items (in order of priority) were identified:

- Provide Methodology Plan for identifying underground subject pipes,
- Identify underground subject pipes with a dye study or other equivalent means to Ecology's satisfaction,
- Provide an as-built drawing of subject underground pipes including inlet points, catch basins, manholes, etc.
- Provide Field work Plans, i.e., Field Sampling Plan, Data Quality Objectives Plan, Quality Assurance/Quality Control (QA/QC) Plan and Health & Safety Plan,
- Collect manhole and catch basin sediment samples, analyze samples, report analytical results,
- Provide a Remedial Action Plan to cleanup the Site sediments in pipes and collection points (i.e., cleanup the catch basin and manhole sediments, as well as jet clean the pipes), and
- Implement the Remedial Action Plan.

Ariel has located and identified subject underground pipes on the Site and has provided an as-built drawing presenting the aforementioned utilities. The Ecology and SPU reviewed and accepted Field Work Plans, i.e., Sampling Plan, Data Quality Objective Plan, and Quality Assurance/Quality Control Plan were used to complying with the overseeing regulatory authorities requirements.

October 12, 2005 SPU Sediment Analytical Results:

SPU sampled six (6) sediment sample points on October 12, 2005 for the presence of PCBs at locations discussed above. The analytical results from each location are BNSF CB1-17 mg/kg, BNSF CB2-23 mg/kg, CB 14-175 mg/kg, CB 8-1,340 mg/kg, composite of CB1 through CB6-19.8 mg/kg and CB12-2,200 mg/kg .

On October 4, 2007 KC's Bruce Tiffany and Arnaud Girard, SPU's Beth Schmoyer, VEI's Conrad Vernon, and Rainier Common's Eitan Alon and John Jack met to discuss potential catch basin sediment containing polychlorinated biphenyl (the, "PCB) that may potentially be discharged from the Site to the Duwamish waterway and wastewater treatment facility located at the Magnolia, Washington treatment facility via KC and SPU storm drains and combined sewer overflows.

June 2006 VEI Sediment Analytical Results:

VEI compared past SPU PCB analytical results from SPU's October 12, 2005 stormwater pollution prevention catch basin inspection and VEI's Catch Basin analytical results collected in June 2006 at the Site. VEI showed the concentrations of PCB analytical results, found in the Site catch basin sediments, had decreased from SPU's highest sample concentration of 2,200 mg/kg located in catch basin CB 12 to VEI's CB 12 sediment PCB sample result concentration of non-detect ((at a Method Reporting Limit of 0.20 mg/kg) by Advanced Analytical Laboratory located in Redmond, WA. SPU and VEI catch basin analytical result trends are presented below.

SPU October 2005 Rainier Commons Catch Basin Sediment Analytical Results (PCB A1254)	**VEI June 2006 Rainier Commons Catch Basin Sediment Analytical Results (PCB A1254)**
BNSF CB-1: 17 mg/kg	BNSF CB-1: 4.3 mg/kg
BNSF CB-2: 23 mg/kg	BNSF CB-2: Non-Detect (ND)
CB-14: 175 mg/kg	CB-14: 0.51 mg/kg
CB-8: 1,340 mg/kg	CB-8: 3.2 mg/kg
CB-1 through CB-6 (composite): 19.8 mg/kg	CB-1: 0.54 mg/kg; CB-2 through CB-6: ND
CB-12: 2,200 mg/kg	CB-12: ND

In an effort to determine whether the PCB source was a result of paint chips released from the facility during painting operations, VEI also collected a paint chip sample. The sample analytical result showed the paint contains 2,300 mg/kg PCB A1254. Based on the paint sample analytical result compared to SPU's catch basin sediment highest PCB analytical result of 2,200 mg/kg, it is highly feasible the paint chips are the source of catch basin sediment impact that may be a result of paint chips migrating from paint chip removal activities to the catch basins during surface run-off precipitation events. Remaining PCB paint on the exterior of the building has been encapsulated through the application of new paint. Moreover, Rainier Commons implemented its PCB Paint O&M Plan in its effort to prevent any future release.

It is Rainier Common's position that the paint chips are no longer present above regulatory concentration limits in the Site catch basin sediments as the analytical trends show over time. SPU and KC identified immediately adjacent and hydraulically down gradient catch basin sample locations to the Site. VEI prepared Catch Basin Sediment Field Sampling, Data Quality Objective and QA/QC Work Plans (Split Sampling Between Rainier Commons, Seattle Public Utility and King County) in response to SPU and KC identified sampling locations dated January 3, 2008. The following results present the analytical results from three (3) King County sampling events and one (1) Seattle Public Utility sampling event.

Chemical(s)-of-concern (PCBs) were compared to Ecology's MTCA Method A cleanup levels of 1.0 mg/kg in a soil matrix. Guidance promulgated under federal statutes 40 CFR 761 is also referenced.

The Field Sampling Plan was prepared for on-site sampling activities. The plan included:

- Sampling objectives
- Sample location and frequency
- Sample Designation
- Sampling equipment and procedures
- Sample handling and analysis

2.0 Sampling Objectives

The sampling objectives, for this sampling event, were to identify on-site PCBs and their respective concentrations in sediments at catch basin locations determined by SPU and in storm water effluent by KC. Analytical results will be used to determine future sediment and stormwater collection and analysis, as well as, remediation points for cleanup compliance.

Another objective was to address and demonstrate data identification; decision inputs, decision rule development, decision error limits and design optimization.

3.0 Sample Location and Frequency

On January 9, 2008 SPU and VEI conducted a one (1)-time catch basin split sampling event immediately prior to SPU water jetting and vactoring the catch basin/associated pipe sample locations. Figure 1 shows the sediment grab/composite sample locations (these are numbered catch basins). SPU identified four (4) hydraulically down gradient, immediately adjacent catch basin sample locations (one (1) more than originally scoped). The January 3, 2008 VEI Field Sampling Plan identified proposed SPU catch basin

sample locations. SPU made a field decision to sample catch basins running parallel to Airport Way between and immediately bordering Tully's retail store parking area and the Rainier Commons Buildings. The first catch basin (CB-1) is located nearest Stevens Street with CB-2, CB-3 and CB-4 running in a straight line south along the pipe conveyance. SPU and VEI also collected one (1) additional vactor truck split sediment sample.

On January 10th, March 13th and June 4th 2008 KC and VEI conducted three (3) end-of-pipe storm water effluent sampling events located at Manhole-1 (Figure 1). The KC storm water effluent sampling events are an addition to the January 3, 2008 VEI prepared Catch Basin Sediment Field Sampling, Data Quality Objective and QA/QC Work Plans (Split Sampling Between Rainier Commons, Seattle Public Utility and King County). KC provided notice of the first sampling event one-day before they mobilized. This did not provide adequate time to incorporate the KC sampling events into the Work Plans. The methods and results follow prescribed regulatory guidance and are provided within this report.

The catch basins and trench drains collect surface drainage and convey it to the storm drain lines (pipes). Selection of these locations assumes the sediment grab/composite sample locations cover the impacted area(s) of the underground stormwater utilities and the samples are at sample locations hydraulically down-gradient in the drainage system and will therefore, be representative of Site underground utility conditions.

Sediment samples were collected and analyzed from each catch basin location during this sampling event as a matrix of five (5)-point grab/composite sediment samples (Section 5). Stormwater effluent samples were collected from a single hydraulically down gradient end-of-pipe point source prior to discharge into an off-site KC stormwater conveyance.

4.0 Sample Designation

Collected sediment and stormwater effluent samples were designated as shown in Table 1. Sampling guidelines are provided in Table 2. The sampling point locations include a center point and the four (4) corners of each catch basin. Sediment samples were collected for one chemical-of-concern, i.e., PCBs at each sample location. Stormwater effluent samples were collected over an eight (8)-hour period using an ISCO sampler. Stormwater sample aliquots were collected every 15-minutes. The stormwater composite was split for laboratory analysis between KC and VEI.

One (1) duplicate from one (1) catch basin was collected for quality control purposes.

5.0 Sample Equipment, Procedures and Handling

Vernon Environmental, Inc. (VEI) collected split sediment grab/composite samples at the identified catch basin locations (Figure 1) during the single sampling event. Split composite stormwater samples were collected during three (3) sampling events.

EPA prescribed method protocols regarding sample collection, cross contamination prevention, sample preservation, sample container type, sample holding temperature, and holding times were followed (January 3, 2008 Work Plans).

Sediment Sample Collection

SPU's field technician collected the split samples. VEI's Conrad Vernon observed the sample collection. Gloves were worn at all times while collecting sediment samples. Descriptions of field observations (including oil sheens and potential contributing activities) and sample characteristics (odor, amount and type of particles being removed, size description, color) were included in SPU field notes recorded during sample collection. SPU collected background vactor truck samples prior to vactoring the catch basins and pipe conveyances.

Catch Basin Sediment

Catch-basin sediment samples were collected using stainless steel spoons and long-handled scoops or soil coring devices. Samples were collected from the top 3-4 inches of sediment accumulated in the catch basin. Individual aliquots were collected from five locations in the sump/structure (four (4) corners and one (1) center point), placed in a stainless steel bowl, and thoroughly mixed. Any particles greater than 2 centimeter in size were removed from the sample and discarded. After mixing, split 250gram aliquot samples were removed and placed into pre-cleaned sample containers provided by the analytical laboratory. Samples were placed in a cooler and stored on ice until delivered to each respective analytical laboratory.

Equipment Decontamination

All sampling equipment including stainless-steel materials was decontaminated prior to each sampling event. The following decontamination procedures were followed after every sampling event:

Stainless-Steel Scoop and Mixing Bowl

- Phosphate-free detergent wash and tap water rinse
- Reagent-grade water rinse
- Ultra-pure methanol rinse
- Air dry
- Wrapped in new aluminum foil and bagged in plastic.

After the decontamination procedures were completed, the sampling equipment was capped or sealed with new aluminum foil and the sampling device was protected and kept clean.

Each sample was clearly marked with the date and time of sample collection, sample collection technician's name, unique sample identification, preservative used and analysis to be performed. Each sample was sealed with chain-of-custody tape. Each sample cooler contained blue ice (or equivalent) to keep the temperature below 40 degrees

Fahrenheit. Each sample cooler was chain-of-custody sealed and a chain-of-custody form was completed in triplicate and placed in the cooler prior to sealing and shipment.

Stormwater Effluent Sample Collection

KC's field Technician collected the split samples. VEI's Conrad Vernon observed the sample collection. Gloves were worn at all times while collecting stormwater samples. Descriptions of field observations (including oil sheens and potential contributing activities) and sample characteristics (odor, amount and type of particles being removed, size description, color) were included in KC field notes recorded during sample collection.

Manhole Stormwater Effluent

End-of-pipe composite stormwater samples were collected using an ISCO sampler. Samples were collected from the bottom of the manhole catch basin where the stormwater pipe discharged. Individual stormwater aliquots were collected in 15-minute intervals through pre-DI water cleaned Tygon tubing that discharged into the pre-cleaned ISCO sampler container over an eight (8) hour period. After collection, the stormwater was poured into a pre-DI water cleaned carboy and mixed with a swirling motion. After mixing, split samples were removed and placed into pre-cleaned 1000 ml amber sample containers provided by the analytical laboratory. Samples were placed in a cooler and stored on ice until delivered to each respective analytical laboratory. KC collected a field blank from the equipment and tubing prior to use. EPA prescribed equipment decontamination procedures were followed.

6.0 Catch Basin Sediment Sample and Stormwater Analytical Laboratory Results

Collected catch basin sediment and stormwater sample analytical results are presented in Appendix A. Sediment and stormwater results are compared to the Washington State Department of Ecology's Model Toxic Control Act (MTCA) Method A Cleanup Standards. Results by analyte are presented below.

Summary of Catch Basin Sediment Analytical Results
Former Rainier Brewery Property
Seattle, Washington

	PCB A1254
Tul CB-1	5.3 mg/kg
Tul CB-2	1.0 mg/kg
Tul CB-3	34 mg/kg

Tul CB-4	8.6 mg/kg
Tul VAC-1	<0.1 mg/kg

Three (3) sediment sample results are reported above MTCA Method A standards (1.0 mg/kg for Aroclor 1254).

Summary of Man Hole Stormwater Analytical Results
Former Rainier Brewery Property
Seattle, Washington

Man Hole-1	PCB Total	TOC	TSS	Duplicate
1/10/08	<0.1 mg/kg			
3/13/08	<0.1 mg/kg			
6/3/08	<0.1 mg/kg	18.4 mg/L	45.9 mg/L	
6/3/08				<0.1 mg/kg

7.0 Data Quality Objective Results

The data quality objectives developed for this Site was appropriate. Please reference the Data Quality Objective Plan (the, "DQOs"), dated January 3, 2008 prepared by Vernon Environmental, Inc. The DQOs were developed in an effort to ensure decisions regarding the design of the investigation and its resultant data would reasonably encompass suspected chemical(s)-of-concern collection and analyses as promulgated under the Washington State Department of Ecology's Model Toxic Control Act. Furthermore, the DQOs would also provide confidence in identifying the aerial and vertical extent of suspected contamination in the sampled catch basin sediments and stormwater effluent at the Site.

The DQOs were developed under the following seven (7) categories:

- Site Impact Summary,
- Decision Identification,
- Decision Inputs,
- Site Boundaries,
- Decision Rule Development,

- Decision Error Limits, and
- Design Optimization

Analyzes of existing and new data to select the lowest cost sampling design that was expected to meet the DQOs was implemented. Existing data from previous investigations was useful in determining contaminant classes and expected concentrations. New data was generated to determine compound class concentrations and media contamination. A tolerance interval of 95% was used to make this determination.

Based on the analytical results, the compound classes identified is appropriate, including the above seven (7) developed data quality objective criteria.

8.0 Data Quality Assurance/Quality Control (QA/QC) Results

All data fell within established and acceptable QA/QC controls. Please reference the QA/QC Plan dated January 3, 2008 prepared by Vernon Environmental, Inc. The purpose of the QA/QC Plan was to relate project objectives to specific measurements required to achieve those objectives. The QA/QC Plan provided sufficient detail to demonstrate the following:

- ♦ Intended measurements were appropriate for achieving project objectives
- ♦ Quality control procedures were sufficient for obtaining data of known and adequate quality
- ♦ Such data is defensible if challenged technically or legally

The QA/QC Plan supported the analytical results, which may be used to evaluate and select basic options required to evaluate the identified areas on the site. The Field Sampling Plan contains many of the elements that are required in the QA/QC Plan (Field Sampling Plan, Vernon Environmental, Inc., January 3, 2008). Please reference the Sampling Plan for the following QA/QC elements.

- ♦ The site background and environmental overview
- ♦ Statement of project objectives
- ♦ Sample collection design for critical and non-critical measurements
- ♦ Tabular summary for type and number of samples, sampling points, quality control and reserve sample collection and analysis
- ♦ Tabular summary of conventional chemistry parameters

- Sample collection schedule
- Applicable regulations
- Sampling site location, procedures, frequency, affected media and validity
- Analytical laboratory methods, e.g., EPA Standard Methods
- Quality control checks
- Required containers, holding times and preservation techniques

Quantitative objectives included analytical result precision, accuracy, method detection limits and completeness. All data fell within acceptable QA/QC parameters.

Qualitative quality assurance objectives included data set comparability and representativeness. Comparability was achieved by using consistent sample collection and analytical methods. SPU, KC and Vernon Environmental were a reliable source for field related sample collection activities. The analytical laboratory was a reliable source for analytical method protocols. Representativeness was achieved by collecting an adequate number of unbiased samples. The data quality objectives attached to the sampling plan assisted in making this determination.

Completeness was also part of the QA/QC plan. A ninety (90) percent goal was established (90% of the total number of samples collected and analyzed have results that passed data validation). The goal was met. Changes were made to the Work Plan; SPU changed the sample locations and KC sampling events were added to the field activities. VEI used Friedman & Bruya, Inc. analytical laboratory in lieu of North Creek Analytical.

Proper sample custody ensuring the analytical results were not compromised during transportation and storage was accomplished. Records of everyone involved with handling the samples were maintained showing sample history for reconstruction later, should the need arise. Please reference the Sampling Plan regarding how sample custody was maintained and recorded from the field to the laboratory. Typical chain-of-custody reports, sample container labels, and custody seals were used. Appendix A presents the chain-of-custody forms.

Friedman & Bruya was responsible for in-house chain-of-custody. Sample tracking was recorded throughout laboratory locations for unpacking, extracting, and analysis. A paper trail was provided to document intra laboratory chain-of-custody.

The schematic flow chart, in the QA/QC Plan, showing the process for data handling, collection, transfer, storage, recovery and review for field and laboratory operations was followed.

Michael Erdahl and Conrad Vernon were responsible for data reduction. EPA and ASTM Standard Methods for data reduction procedures were followed. Analytical results were compared to QA/QC parameters for each analyzed chemical. Blanks were included in determining analyte concentration. No blank samples were above method detection limits. All sediment data was reported on a dry weight basis.

The data validator reviewed all analytical results and compared them to established QA/QC controls. The analytical results do not contain flagged data outliers.

9.0 Conclusions and Recommendations

The sediment analytical results show polychlorinated biphenyls (PCBs) have been released to sediments, contained in 3 of the 4 catch basin sampling points, above applicable regulatory cleanup standards. PCB analytical results range from ND to 34 mg/kg above the cleanup standard of 1.0 mg/kg (Section 6.0). The stormwater analytical results show stormwater has not been impacted above regulatory limits.

In view of the analytical results from the catch basin sediment/stormwater investigation, VEI recommends development of a catch basin Operation & Maintenance Plan for use in controlling the release of potential sediment containing PCBs from the catch basins (quarterly clean out of the catch basins). VEI also recommends discussion of the catch basin results with Ecology, KC and SPU in an effort to determine next steps.

10.0 Limitations

The conclusions contained in this report are based on professional opinions with regard to the subject matter and are limited by the limited available information provided by Ariel Development, Inc. with regard to the Site; access restrictions during the Site investigation/inspection due to the current business operations; and client imposed time restrictions to complete historical research and the investigation. These opinions have been offered in accordance with currently acceptable standards and practices applicable to this Site and imposed project restrictions. The following presents inherent limitations:

- **Accuracy of Information.** Certain information used by Vernon Environmental, Inc. (the, "VEI") to complete this report has been obtained, reviewed, and evaluated from various sources believed to be reliable. Although VEI's conclusions and opinions are based in part on such information, VEI's services did not include the verification of its accuracy or authenticity. Should such information prove to be inaccurate or unreliable, VEI reserves the right to amend or revise its conclusions, opinions, and recommendations.

- **Limitations.** Because VEI's report is based on information, the accuracy of which has not been determined, and because VEI's observations made during the Site investigation are limited, VEI cannot and does not guarantee that latent or undiscovered conditions will not become evident in the future. Since Site activities beyond our control could change at any time after the completion of this

report, our observations, findings, and opinions can be considered valid only as of the date of the completion of the investigation. Unless stated otherwise herein, this information is intended for and restricted to the sole use of Ariel Development, Inc. any use, interpretation, or reliance upon this information by anyone other then the parties identified, is at the sole risk of that party, and VEI shall have no liability for such unauthorized use, interpretation, or reliance. VEI's professional services agreement, executed with its client, present the sole remedy, including but not limited to, limitations of liability between VEI and its client.